Glenstone ADA, Safety and Operations Project

PRESENTED TO
THE CITY OF SPRINGFIELD, CITY COUNCIL

January 5, 2021

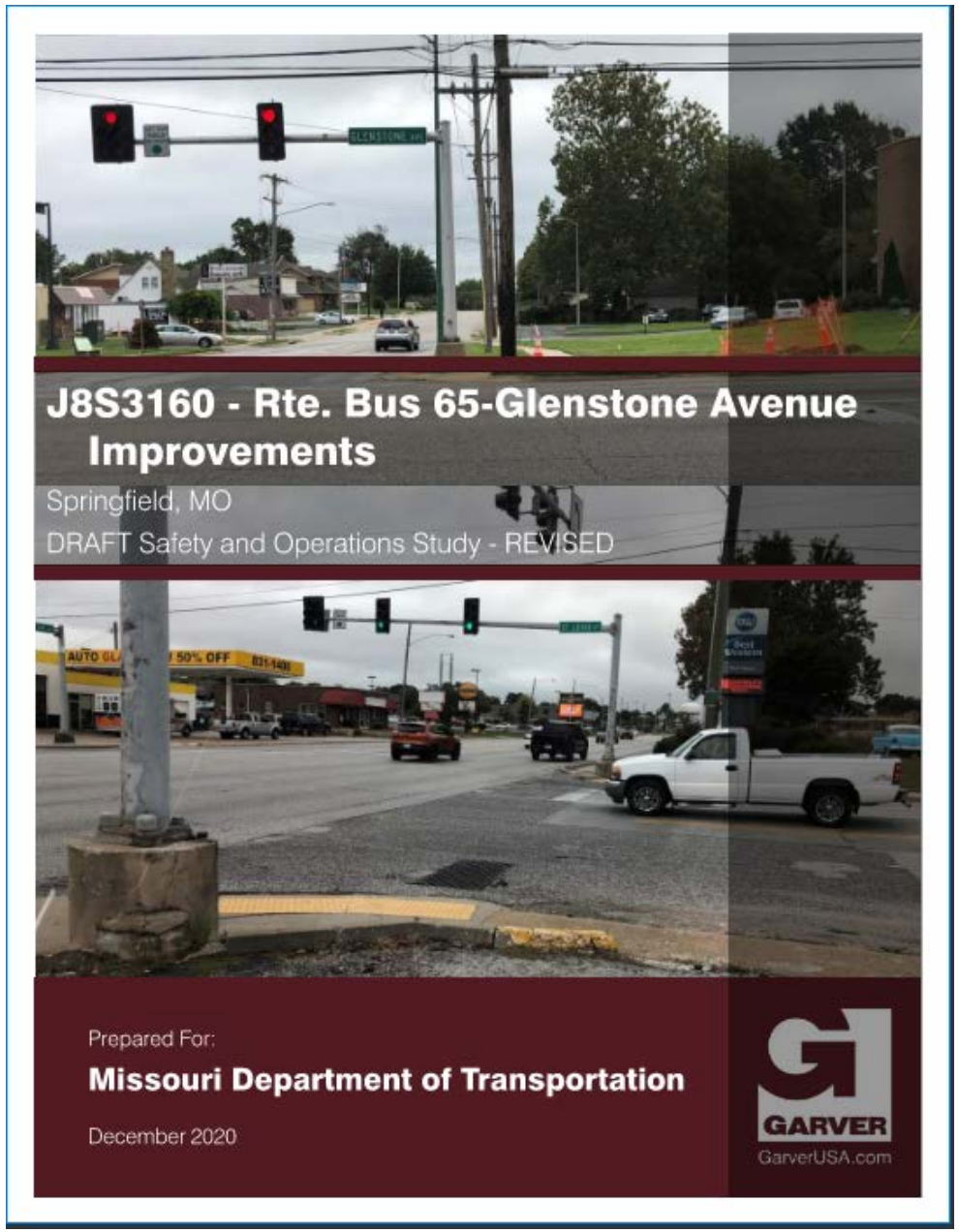
Project Team

- MoDOT – Project Manager Kristi Bachman, PE
- MoDOT – Asst. District Engineer Stacy Reese, PE
- Garver – Consultant Project Manager Charles Touzinsky, III, PE, ENV SP
- Garver – Consultant Deputy Project Manager Don Saiko, PE
- Garver – Consultant Traffic Engineer Mike Spayd, PE, PTOE

Project Details

- Stoneridge Street to James River Freeway and Nature Center Way
- Resurfacing, ADA, Safety and Operational Improvements
- Total Cost = $12.4M
- Traffic Study – completed in 2020
- Public Involvement and Design - 2021
- Construction - 2022

Safety and Operations Report Results



Glenstone – Safety/Operations Study

- Project Goals
  - Improve Safety
  - Reduce Peak Hour Delay
  - Improve Pedestrian Access and Signal Operation/Maintenance
- Provide a prioritized means of allocating:
  - $1,003,000 – Operational Improvements
  - $1,145,000 – Safety Improvements
  - *Project also provides $298,000 for new fiber optics*
- 12 Priority Intersections and Mid-Block Locations (Battlefield – Commercial)
  - Secondary Study Area extended from Battlefield to US 60, Commercial to Water Valley Mill

Glenstone – Safety/Operations Study

- Potential Countermeasures
  - Missouri Safety Blueprint, FHWA Proven Countermeasures

Signal Hardware	Complete Replacement
	Signal Head Back Plates
	Replace 5-Section w/ FYA
	Battery Back-Up
	Update Mast Arm Signage
	New Detection
	New Poles
	New Cabinet
	New Power Supply
	New Conduit
	Provide Mid-Block HAWK/RRFB
	Provide Pedestrian Accomodations (crosswalks, ramps, heads, buttons)

Signal Operation	Add/Remove Left Turn Phase or Lag Left Turn Phase by Time of Day
	Reallocate Splits
	Set Phases to Actuated
	Adjust Clearance Intervals
	Remove Traffic Signal

Intersection Configuration	Increase Turn Lane Storage
	Provide New Right Turn Lanes
	Modify Right Turn Island Angle
	Modify Right Turn Island Signage
	Use Striping to Align Approaches
	Provide Offset Left Turn lanes
	Provide Lane Drop Pavement Markings and Signs
	Increase Intersection Sight Distance
	Update Striping (Yield Lines, Crosswalks, Stop Bars)

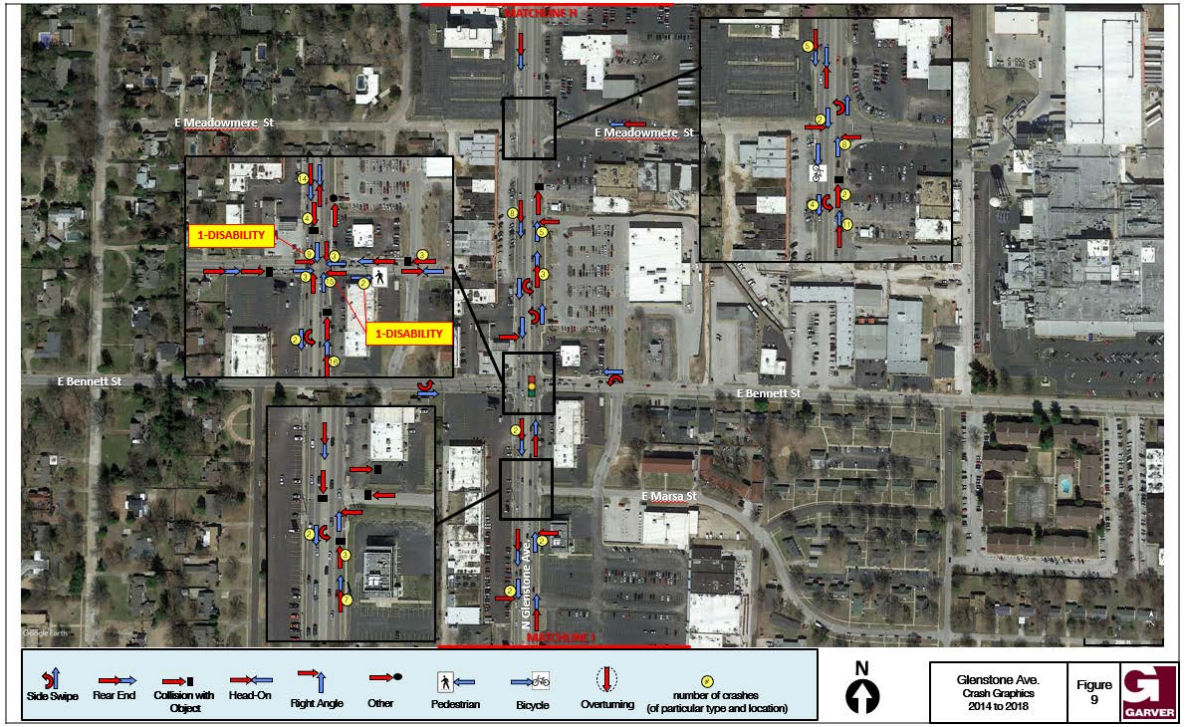
Signing and Access Improvements	Street Name Signs / Intersection Ahead
	Systematic Striping/Signing for Stop-Control Intersections
	Advance Warning Signs for Railroad Crossings
	Install Intersection Lighting
	Provide sidewalk
	Provide Intersection Conflict Warning System
	Island Nose Reflectivity / Visibility
	Bus Stop Consideration

Access Management Consideration	Eliminate Redundant Access
	Remove Driveway in Intersection Influence Area
	Apply Raised Median
	Provide Pedestrian Refuge Islands
	Convert to RI-RO or Left-in + RI/RO

MoDOT GARVER

Glenstone – Safety/Operations Study

- Safety
  - Over 1500 crash records (2014-2018) in Focus Area
  - Mapped by Crash Type
  - Separated by Study Intersections and Mid-Block



Location	CRASH TOTALS						
	Total	PDO	Minor Injury	Disabling Injury	Fatal	Ped	Bike
Focus Study Area	1530	865	629	33	3	25	12
Supplemental Study Area	703	400	273	21	9	16	6
Total	**2233**	**1265**	**902**	**54**	**12**	**41**	**18**

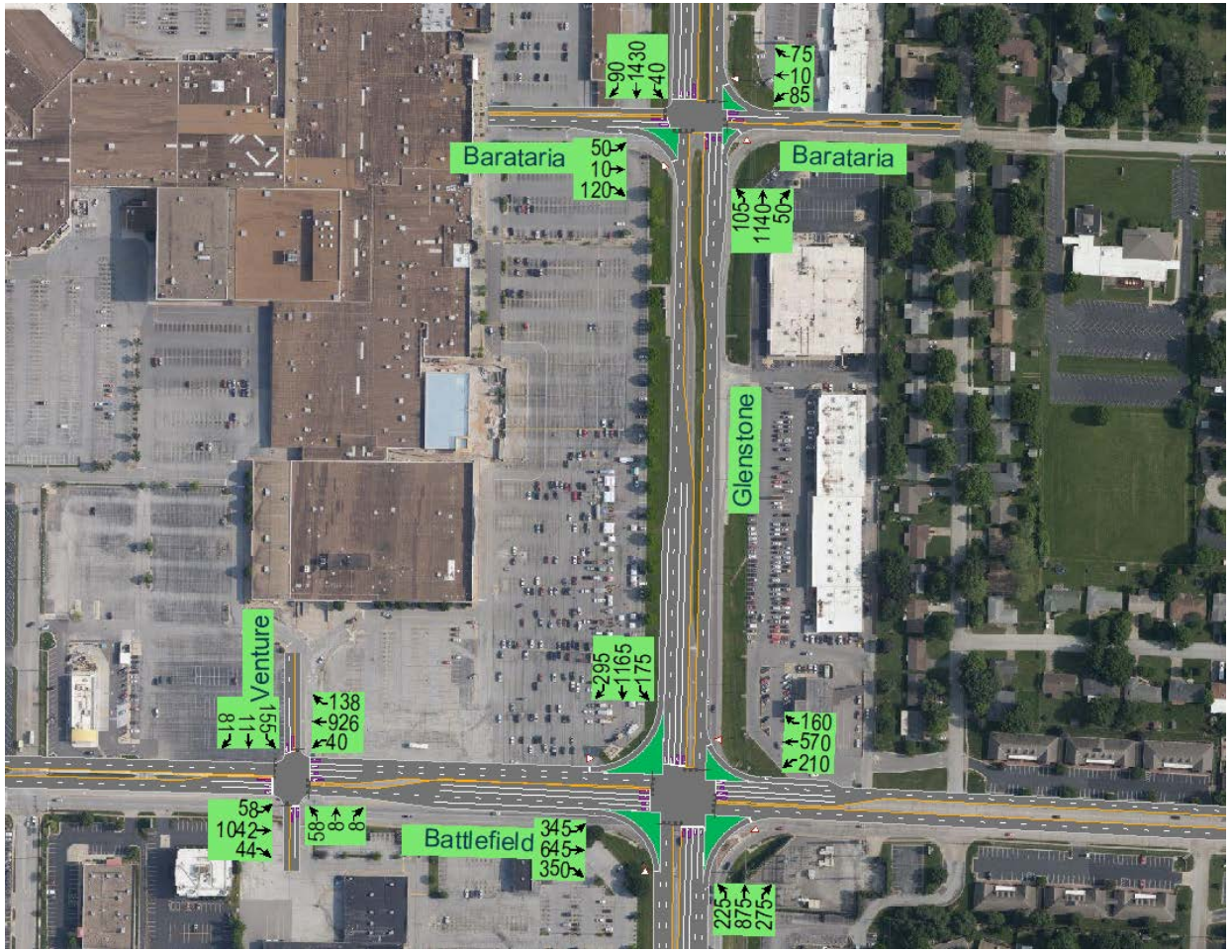
Glenstone – Safety/Operations Study

- Safety
  - Ranked by Occurrence and Rate
  - Top Intersections in Focus Area
    - Cherry, Grand, Bennett, Sunshine, Division
  - Top Mid-Block Locations
    - Bennett to Grand (90 driveways/mile)
    - Grand to Cherry (136 driveways/mile)
    - Cherry to St Louis (75 driveways/mile)
    - Division to Chestnut
    - Division to Commercial
  - **Secondary Study Area:** High number of fatal/serious injury crashes between Dale Street and Kearney Street

Intersection/ Segment	Total # of Intersection Crashes	Rank	Intersection Crash Rate per 100 MEV	Rank	Total # of Segment Crashes	Rank	Segment Crash Rate per 100 MVM	Rank
	Intersections				Segments			
Dale Street								
↕					27	9	201.0	10
Commercial Street	25	13	38.6	13				
↕					59	5	440.2	3
Division Street	78	6	98.6	4				
↕					90	3	236.6	8
Chestnut Expressway	72	7	70.3	7				
↕					20	12	124.6	13
St Louis Street	42	9	62.4	8				
↕					83	4	471.6	2
Cherry Street	85	2	117.2	1				
↕					129	1	526.9	1
Grand Street	82	3	111.4	2				
↕					105	2	415.2	4
Bennett Street	80	4	103.5	3				
↕					26	10	297.1	6
Portland Street	45	8	53.7	11				
↕					32	7	221.1	9
Sunshine Street	119	1	97.7	5				
↕					23	11	313.2	5
Cherokee Street	25	13	37.1	14				
↕					28	8	267.1	7
Seminole Street	42	9	61.8	9				
↕					47	6	197.7	11
Sunset Street	38	11	55.3	10				
↕					7	14	67.9	15
Barataria Street	29	12	45.7	12				
↕					11	13	130.0	12
Battlefield Road	80	4	78.1	6				
↕					6	15	102.9	14
Erie Street								

Glenstone – Safety/Operations Study

- Operations
  - Used 2018 Data (30-40k vpd)
  - Used Current Signal Timing Plans
    - 130 s Cycle in AM, 150s Cycle in PM
  - LOS by Intersection and Movement
  - V/C ratios to identify constrained movements
  - Queue lengths to identify storage needs



Glenstone – Safety/Operations Study

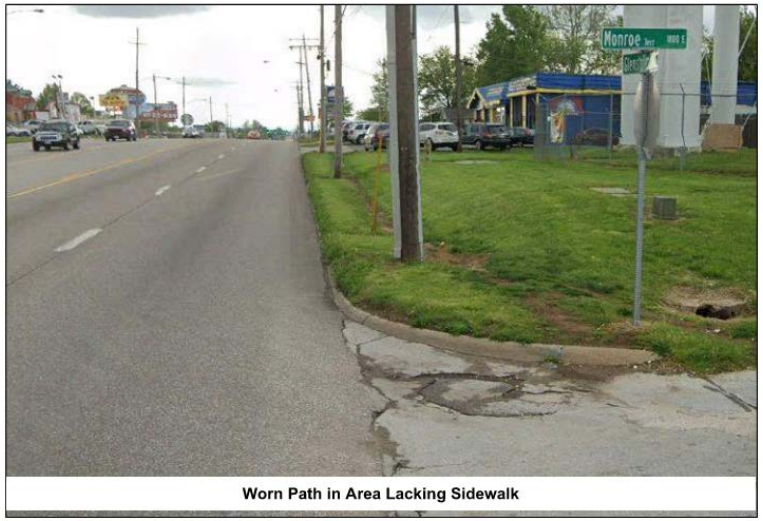
- Operations
  - Tier 1: Good overall delay with side street delay related to long cycle
    - Overall LOS A or LOS B
    - Barataria, Sunset, Cherokee, Portland, St Louis, Commercial
  - Tier 2: Side streets need more time/have queuing issues
    - Overall LOS C or LOS D
    - Bennett, Grand, Cherry
  - Tier 3: Intersection at or near capacity but fully built out
    - Overall LOS E or LOS F
    - Battlefield, Sunshine, Chestnut

Glenstone Ave (BUS 65) at Sunshine St						
Eastbound Approach	***E (57.0)***	-	-	***E (72.0)***	-	-
Eastbound Left-turn	E (66.7)	150.0	0.814	E (79.8)	231.0	0.870
Eastbound Thru	D (53.1)	307.0	0.798	E (68.8)	#547	0.922
Eastbound Right-turn	A (0.0)	0.0	-	A (0.0)	206.0	-
Westbound Approach	***E (59.2)***	-	-	***E (63.7)***	-	-
Westbound Left Turn	E (56.8)	151.0	0.615	E (79.9)	250.0	0.879
Westbound Thru	E (59.9)	422.0	0.912	E (55.4)	431.0	0.768
Westbound Right-turn	A (0.0)	186.0	-	A (0.0)	75.0	-
Northbound Approach	***C (30.6)***	-	-	***F (81.4)***	-	-
Northbound Left-turn	E (67.0)	114.0	0.780	F (86.4)	#159	0.808
Northbound Thru	C (23.6)	297.0	0.784	F (80.3)	#538	0.918
Northbound Right-turn	A (0.0)	112.0	-	A (0.0)	176.0	-
Southbound Approach	***C (21.9)***	-	-	***C (26.4)***	-	-
Southbound Left-turn	D (49.2)	#147	0.557	D (45.4)	214.0	0.581
Southbound Thru	B (12.3)	210.0	0.461	C (20.2)	#583	0.820
Southbound Right-turn	A (0.0)	75.0	-	A (0.0)	100.0	-
Overall Intersection	**D (43.1)**	-	-	**E (58.7)**	-	-

Glenstone Ave (BUS 65) at Cherry St						
Eastbound Approach	***D (53.0)***	-	-	***F (94.1)***	-	-
Eastbound Left-turn	D (46.9)	85.0	0.476	D (52.7)	117.0	0.473
Eastbound Thru	E (55.5)	219.0	0.677	F (108.6)	#456	0.966
Eastbound Right-turn	E (55.6)	-	0.677	F (108.6)	-	0.966
Westbound Approach	***E (64.7)***	-	-	***E (71.5)***	-	-
Westbound Left Turn	D (44.4)	124.0	0.497	E (70.1)	#273	0.819
Westbound Thru	E (73.7)	320.0	0.904	E (72.4)	#462	0.810
Westbound Right-turn	E (73.7)	-	0.904	E (72.4)	-	0.810
Northbound Approach	***A (2.6)***	-	-	***A (3.2)***	-	-
Northbound Left-turn	B (15.6)	m8	0.195	B (12.4)	m41	0.230
Northbound Thru	A (2.1)	570.0	0.648	A (2.8)	241.0	0.721
Northbound Right-turn	A (2.0)	-	0.649	A (2.7)	-	0.723
Southbound Approach	***D (38.4)***	-	-	***A (4.2)***	-	-
Southbound Left-turn	B (11.8)	50.0	0.163	B (12.7)	97.0	0.292
Southbound Thru	D (40.1)	337.0	0.529	A (3.7)	327.0	0.723
Southbound Right-turn	D (40.0)	-	0.529	A (3.6)	-	0.725
Overall Intersection	**C (27.9)**	-	-	**B (19.9)**	-	-

Glenstone – Safety/Operations Study

- Pedestrian Access
  - 41 Total (7 Fatalities)
    - 5 Fatalities North of Commercial
  - Focus Area
    - 25 crashes (2 Fatalities)
    - No Pedestrian Facilities
      - Barataria, Sunset, Cherokee, Cherry, St Louis
    - Some Pedestrian Facilities
      - Grand, Commercial
    - Complete Pedestrian Facilities
      - Battlefield, Sunshine, Portland, Bennett, Chestnut
    - RRFB + Offset Ped Island
      - North of Portland



Worn Path in Area Lacking Sidewalk

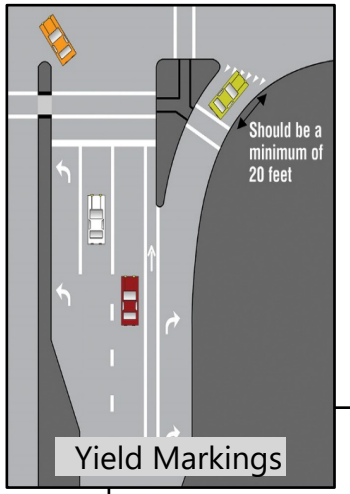
Glenstone – Safety/Operations Study

- Traffic Signal Condition
  - Partial upgrades over time – can't modify further due to conditions
  - Candidates for Full Replacement
    - Commercial, St Louis, Cherry, Grand, Bennett
  - New Conduit needed for Peds
    - Sunset, Cherokee, Commercial
  - Need to move pole for truck turning radii
    - Barataria, Portland, Bennett, Commercial
  - New Detection Desired
    - Sunshine, Chestnut
  - No Flashing Yellow Arrow
    - 7 Locations
  - Battery back-up, surge protection, power supply issues

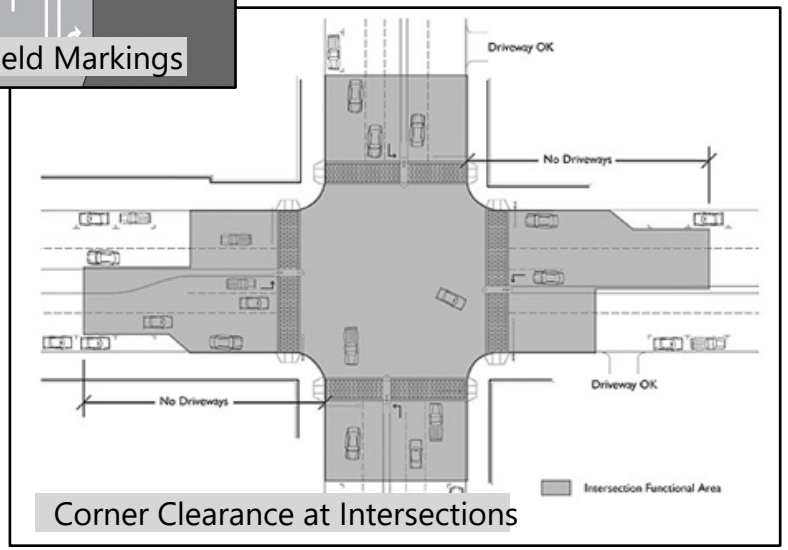
Signalized Intersection Location	Signal Hardware/Capability Needs											
	Full Replacement Candidate	Pedestrian Needs		FYA	New Conduit/ Pullbox	Detection Upgrade	Old Poles	Battery Backup	Surge Protection	Pole Placement	Cabinet Placement/ Foundation	Fiber Optic Comm
		Full	Partial									
Commercial Street	X		X	X	X		X	X	X	X		X
Chestnut Expressway						X	X		X			
St Louis Street	X	X		X			X	X			X	X
Cherry Street	X	X		X	X		X					X
Grand Street	X		X	X	X		X					X
Bennett Street	X			X			X	X		X		X
Portland Street							X	X		X		X
Sunshine Street						X						
Cherokee Street		X			X			X				
Sunset Street		X		X	X				X		X	
Barataria Street		X		X			X		X	X		
Battlefield Road					X						X	

Glenstone – Safety/Operations Study

- Safety Improvements Considered
  - Systematic: New intersection ahead signs and signal backplates
  - Small striping and signing updates
  - Access Management – Focus on High Crash Areas
    - Corner clearance – remove redundant driveways near signalized intersections
    - Extend Existing Medians
    - Prohibit Side Street Left Turn Movements
- Operations Improvements Considered
  - Add FYA and optimize timings
  - Weigh benefits of extending or adding turn lanes



Yield Markings



Corner Clearance at Intersections

Glenstone – Safety/Operations Study

- Pedestrian Facility and Traffic Signal Improvements Considered
  - Complete signal upgrades (FYA and provide full pedestrian accommodation)
  - Signal Modification as $$$ allows: Add pedestrian facilities, replace conduit, battery backup
- Prioritization
  - # of crash reductions
  - Hours of delay saved
  - Some improvements are difficult to quantify

Upgrade Traffic Signals to Include Pedestrian Facilities

Glenstone Corridor – Draft Plan

Rank	Countermeasure	Location	BCR	Cost	
				Safety	Operational
Safety-Only Improvements					
1	Prohibit Left Turns from Turner Street	Dale Street to Kearney Street	126.9	$60,000	--
2	Prohibit Left Turns from Monroe Street (W)	Cherry Street to Grand Street	50.1	$60,000	--
3	Remove 1 Parking Space in NW Quadrant at Florida Street	Dale Street to Commercial Street	39.2	$20,000	--
4	Eliminate Driveways in NE, NW Quadrant	Commercial Street	29.7	$120,000	
5	Eliminate Driveway in NE, SW Quadrants	Grand Street	18.3	$120,000	
6	Prohibit Left Turns from Elm Street	St Louis Street to Cherry Street	23.4	$60,000	--
7	Prohibit Left Turns from Meadowmere Street	Grand Street to Bennett Street	20.9	$60,000	--
8	East Side Sidewalk (740 ft) + West Side Sidewalk (215 ft)	Grand Street to Cherry Street	20.9	$28,650	--
9	Eliminate Driveway in SE quadrant	Portland Street	16.5	$60,000	
10	Prohibit Left Turns from Blaine Street	Commercial Street to Division Street	16.4	$60,000	--
11	Extend Current Median 100' N of Brower Street	Division Street to Chestnut Expressway	14.7	$60,000	--
12	Prohibit Left Turns from Cairo Street	St Louis Street to Cherry Street	14.3	$60,000	--
13	Signal Modification (Provide Peds, Ramps)	Dale Street	2.8	$75,000	--
Operational and Safety Improvements					
1	Signal Rebuild w/ FYA and Left Turn Offset	Bennett Street	17.5	$105,000	$295,000
2	Signal Rebuild w/ Peds and FYA	Cherry Street	11.1	$65,000	$235,000
3	Signal Rebuild w/ Peds and FYA	Grand Street	11.1	$65,000	$235,000
4	Signal Rebuild w/ Peds and FYA	St Louis Street	3.3	$65,000	$235,000
5	Install Fiber Optic Cable	Evergreen Street to Division Street	--		$219,000
6	Install Fiber Optic Cable	St. Louis Street to Cherry Street	--		$79,000
Total Project Funding Need				**$1,143,650**	**$1,298,000**

MoDOT GARVER

Glenstone Corridor – Draft Plan

Additional Improvements

- Resurfacing Project
  - Yield Markings
  - Restripe for longer turn lanes
  - New Signs
  - Align approaches
  - Delineators for median visibility
- Signal Optimization
  - Use FYA
  - Time of Day left turn phasing
  - Assess side street delays

Rank	Countermeasure	Location	BCR	Cost	
				Safety	Operational
Safety/Operations Improvements to be Implemented as part of Resurfacing Project					
1	Restripe for Longer WB Left Turn Lane	Bennett Street	6.7	--	$5,000
2	Extend Eastbound Left Turn Lane (Restripe)	Commercial Street	2.5	--	$5,000
3	Yield Markings/Crosswalks	Sunshine Street	59.0	$10,000	--
4	Yield Markings/Crosswalks	Battlefield Road	49.8	$10,000	--
5	Yield Markings/Crosswalks	Division Street	47.0	$10,000	--
6	Improve SB channelized RT delineation	Division Street	46.0	$10,000	--
7	Yield Markings/Crosswalks	Chestnut Expressway	44.3	$10,000	--
8	Move Lane Ends Sign on East Leg and Convert to Right Side Merge	Division Street	--	$10,000	--
9	RRFB Improvements (Move Adv Warning Sign + Advanced Yield Lines)	Bennett Street to Portland Street	--	$10,000	--
10	Update Lane End Pavement Markings on West Leg	St Louis Street	--	$5,000	--
11	Use Striping to Align Approaches	Grand Street	--	$5,000	--
12	Delineation for RT Island, Median	Barataria Street	--	$5,000	--
13	Delineation for RT Island	Battlefield Road	--	$5,000	--
14	RRFB Improvements (Advanced Yield Lines)	Kearney Street to Evergreen Street	--	$5,000	--
Signal Optimization Improvements to be Implemented by MoDOT					
1	Optimize for additional N-S bandwidth	Sunshine Street	25.9	--	$10,000
2	Optimize Timing for WB LT	Chestnut Expressway	24.0	--	$10,000
3	Optimize Timing (Use FYA lead/lag, TOD)	Seminole Street	12.1	--	$10,000
4	Optimize Timing (Use FYA lead/lag, TOD)	Portland Street	9.7	--	$10,000
5	Apply Signal Optimization to Side Streets	Cherry Street	5.4	--	$10,000
6	Apply Time of Day Permitted Left Turn Phasing	St Louis Street	3.7	--	$10,000
7	Remove WB Max Recall	Barataria Street	3.1	--	$5,000
8	Optimize Timing (Use FYA lead/lag, TOD)	Cherokee Street	2.5	--	$10,000
9	Apply Time of Day Permitted Left Turn Phasing	Commercial Street	1.7	--	$10,000
Total Project Funding Need				**$95,000**	**$95,000**

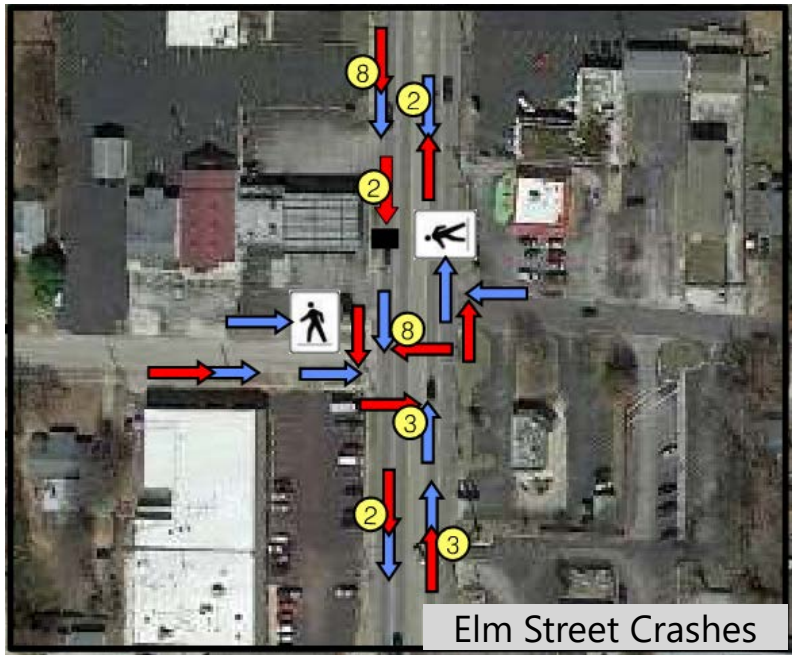
Glenstone Corridor – Draft Plan

- Complete Traffic Signal Rebuilds
  - Bennett Street, Cherry Street, Grand Street, St Louis Street
- Fiber Optic Cable
  - Evergreen to Division
  - St Louis to Cherry
- Signal Modification
  - Provide pedestrian facilities at Dale Street

Traffic Signal Upgrade at Bennett Street will remove poles from median

Glenstone Corridor – Draft Plan

- Cross Street Left Turn Prohibitions
  - High Crash Locations:
    - Turner Street – 6.8 crashes/year
    - Monroe Street – 11.4 crashes/year
    - Elm Street – 6.6 crashes/year
    - Meadowmere Street – 7 crashes/year
    - Blaine Street – 6.0 crashes/year
    - Cairo Street – 4.4 crashes/year
  - Benefit: Can reduce crashes up to 68%



Elm Street Crashes

Glenstone Corridor – Draft Plan

- Corner Clearance at Signalized Intersections
  - Locations:
    - Commercial Street – 5 crashes/year
    - Grand Street – 16.4 crashes/year
    - Portland Street – 9 crashes/year
  - Benefit: Signalized intersections with added driveways have 33% more crashes
- Median Extensions near Signalized Intersections
  - Locations:
    - North of Chestnut Street (Brower) – 4.4 crashes/year
  - Benefit: Raised Medians reduce crashes by 39%


Corner Clearance at Commercial


Median Extension north of Chestnut

Glenstone Corridor – Draft Plan

- Remove Parking Space at Florida Street
  - Benefit: Increasing intersection sight distance reduces injury crashes by 48%
- Install Sidewalk from Grand to Cherry
  - Consistent with Signal Upgrades
  - Benefit: 65% fewer vehicle-pedestrian crashes

Improve Sight Distance

City of Springfield Glenstone Ave. Subarea Plan

GLENSTONE AVENUE

SUBAREA FRAMEWORK

As a primary travel route from the expressway and the location of hundreds of Springfield's hotel rooms, the Glenstone Avenue corridor near I-44 is a key entry point into the City for residents, visitors, and businesses. The quality of the visitor and pedestrian experience, and aesthetic along the corridor contribute significantly to Springfield's community image. Glenstone Avenue is an auto-oriented corridor with limited pedestrian infrastructure and minimal streetscaping. Infill opportunities exist to expand on the subarea's hotel and commercial development and encourage high-quality entertainment and dining. This subarea identifies strategies for transforming Glenstone Avenue into an inviting, active, and functional area, creating a good first and last impression of Springfield.

Sidewalk Configuration. Improve walkability and sense of safety for pedestrians by providing landscaped buffers between the sidewalk and roadway with grass, trees, and low-lying evergreen shrubs. The sidewalk currently runs directly adjacent to the street in most segments, such as along the Culver's property, creating an uncomfortable pedestrian experience. As sidewalks are reconfigured, ADA compliance should be met to ensure the corridor can be easily accessible by people of all abilities.

Sidewalk Extension. Provide access to the northern hotel and restaurant properties by extending sidewalk connectivity along Evergreen Street and Stewart Avenue. A new sidewalk should also be constructed in front of the two gas station properties to fully connect the sidewalk system.

Curb Cut Consolidation. Remove excess curb cuts to reduce potential traffic conflict points and disruptions in sidewalk connectivity. All remaining curb cuts should be enhanced with crosswalks to signify a continuation of the sidewalk and improve pedestrian safety.

Cross Access. Working with property owners, create cross access between adjacent parking lots to reduce the need for drivers to use Glenstone Avenue. This will help mitigate traffic and reduce the risk for accidents along Glenstone Avenue while allowing convenient access between establishments.

Roadway Extension. Through coordination with property owners, extend Talmage Court and North St eastward to connect with Glenstone Avenue, providing direct connections to and from the adjacent neighborhoods. In addition, construct a new access road connecting Kerr Street to Kearney Street along the rear of properties. Both roadway extensions would create alternative travel routes, improve circulation, and alleviate congestion along Glenstone Avenue, Steward Avenue, and Evergreen Street. Roadway extensions will need to be coordinated with existing signalized intersections.

Midblock Crossing. Construct additional midblock crossings, like the existing crossing at the Oasis Hotel and Convention Center property, to reduce the distance between crossing opportunities for pedestrians and bikers. This would significantly improve the walkability and safety of the corridor, as well as increase access to commercial uses for visitors staying in the hotels. As result, the overall functionality of the avenue as a travel corridor and lodging area would be enhanced.

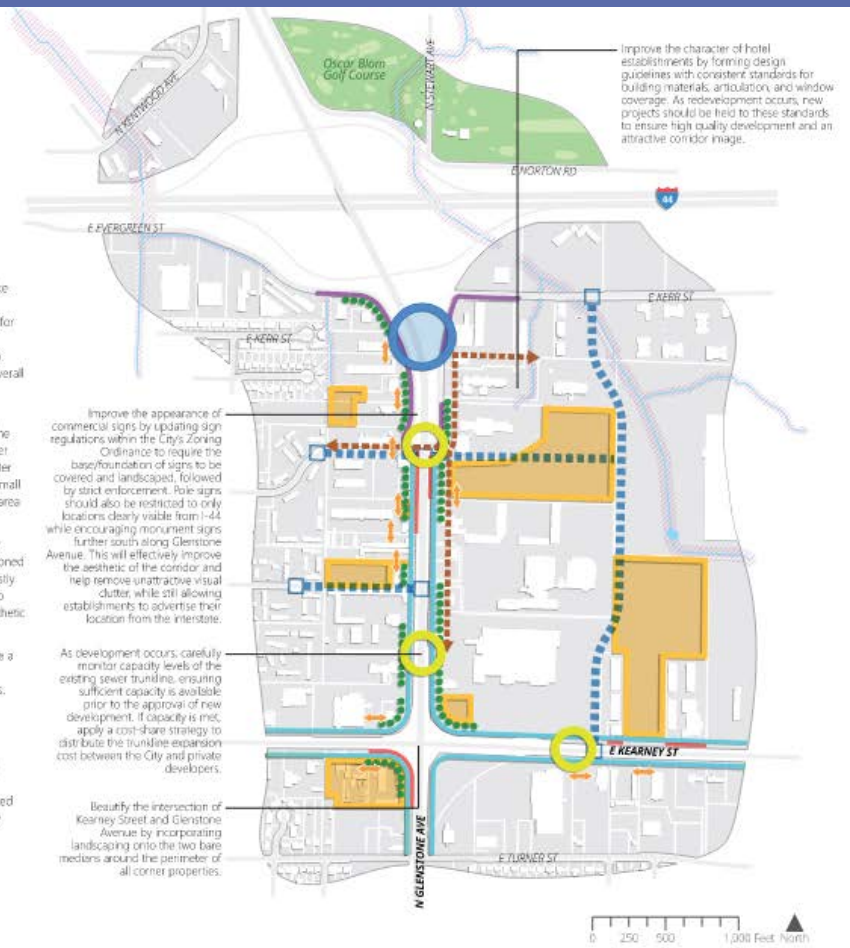
Riparian Buffer Requirements. Ensure new development or the redevelopment of existing sites along streams adhere to the buffer requirements set forth in Chapter 8 of the Flood Control and Water Quality Protection Manual. Type C (large tributary) and Type D (small tributary) streams existing within the northern portion of the subarea may require a 50- or 30-foot wide buffer zone respectively.

Bury Utility Lines. Work with local utility providers, such as City Utilities, to prioritize Glenstone Avenue for the removal of abandoned utility infrastructure and to bury overhead utility lines. While a costly endeavor, this will reduce visual clutter and potential limitations to desirable sidewalk configurations, significantly improving the aesthetic and walkability of the corridor.

Gateway Enhancement. In coordination with MoDOT, formalize a gateway onto Glenstone Avenue from I-44 by incorporating landscaping, an attractive gateway sign, and landscaped medians. Improvement of this gateway will help create a lasting positive impression for those traveling into or out of Springfield.

Perimeter Landscaping. Work with property owners to install perimeter landscaping to improve the image of the corridor and screen views of parking lots. Perimeter landscaping should be required for all properties fronting Glenstone Avenue and designed to maximize stormwater management and improve water quality through BMPs, such as bioretention areas.

Development Opportunities. Refer to the Development Opportunities graphic for recommendations pertaining to each opportunity site.



City of Springfield Glenstone Ave. Subarea Plan

GLENSTONE AVENUE
SUBAREA TOOLBOX

GATEWAY ENHANCEMENT

The intersection of Glenstone Avenue and I-44 is an important gateway into Springfield for those traveling along the interstate. Currently, there are no improvements or features clearly announcing entry into the City. In coordination with MDOT, the City should implement gateway enhancements within the open space along the interstate off and on ramps and on Glenstone Avenue. This can include arch or stone monument signage, landscaping such as landscaped medians, and public art to make a positive first impression upon visitors. Wayfinding could also be installed at this intersection, as at key points along Glenstone Avenue, to direct visitors to destinations such as Downtown, local universities, and Cooper Park and Sports Complex.

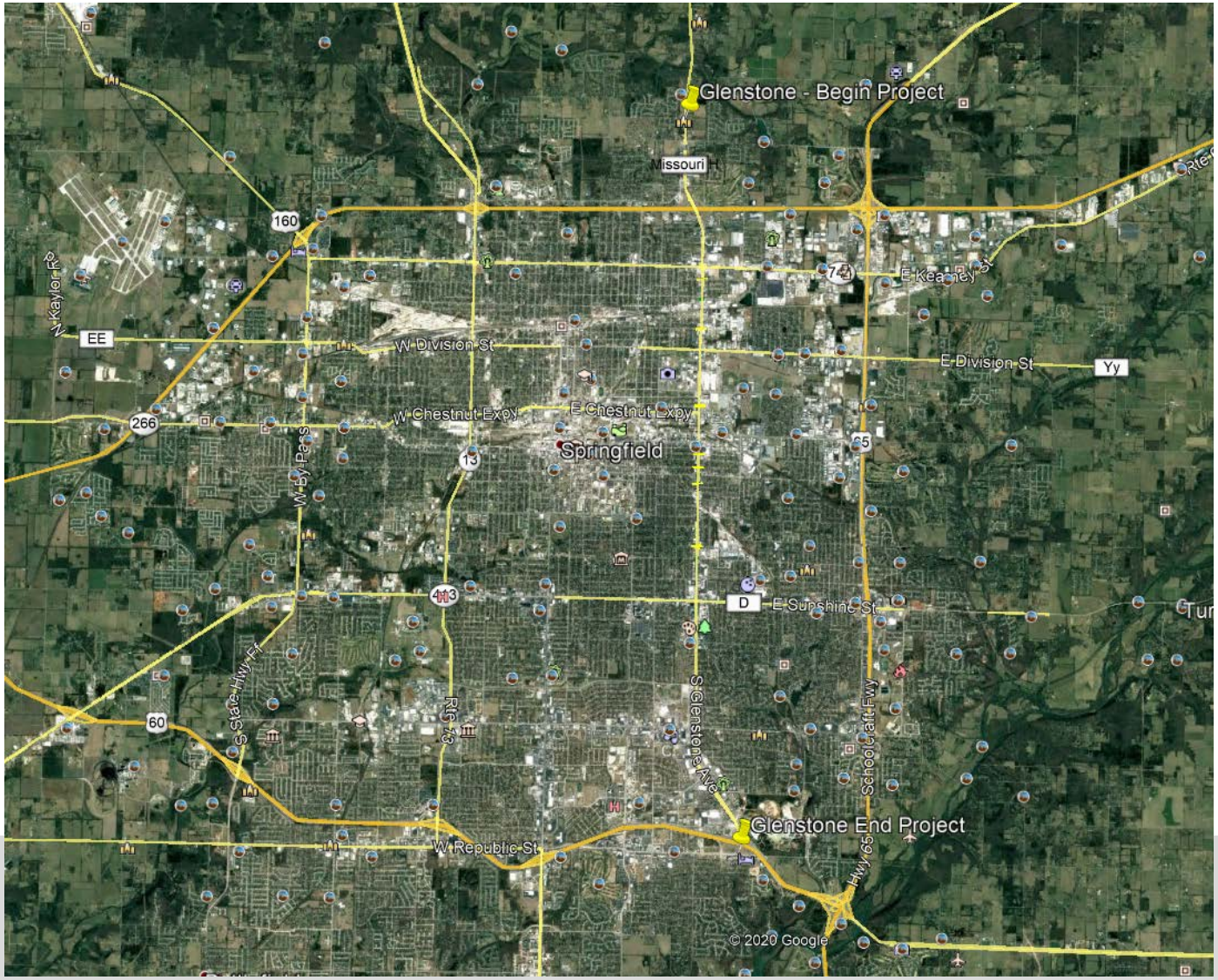
MIDBLOCK CROSSING

While the subarea is frequently traveled by foot, it is currently unfriendly to pedestrians with poor sidewalk conditions in certain segments and a lack of safe crossing opportunities. To improve the walkability of the corridor, the City should implement midblock crossings at key points along Glenstone Avenue to reduce the distance a pedestrian would have to travel to reach the other side of the busy avenue and increase accessibility to businesses on either side. This includes installing highly visible "zebra crossings" and High-Intensity Activated Crosswalk (HAWK) signals that utilize pedestrian-activated flashing crossing lights to provide a visual cue to drivers that pedestrians may be present. A pedestrian refugee island should also be incorporated as completed at the existing midblock crossing in front of the Oasis Hotel to increase safety and reduce initial crossing distance.

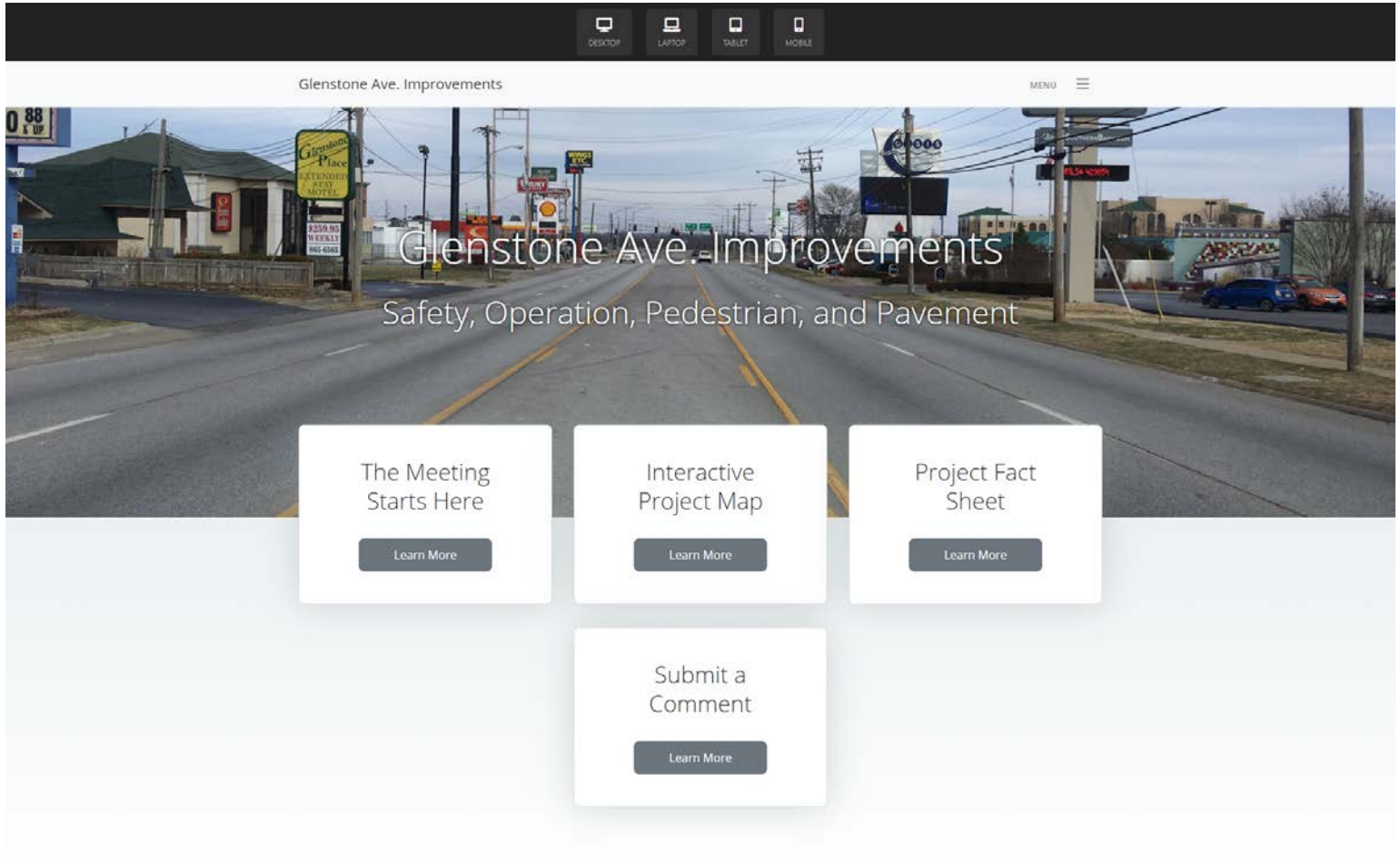
ROADWAY EXTENSION

As development has occurred in areas of north of I-44, congestion along Glenstone Avenue has grown. The extension of local roadways and creation of a new north-south route to the east will provide alternative travel routes and improve circulation to mitigate traffic along Glenstone Avenue. This includes extending North Street and Talmage Court eastward to connect with Glenstone Avenue and creating a new access road from Kerr Street to Kearney Street behind the eastern properties. This will also help improve access to the residential neighborhood west of the subarea. Such roadway expansions will require coordination with property owners and MoDOT to secure needed for public right-of-way.

Proposed Corridor Operational Improvements



Virtual Public Meeting Website



Questions?